

220095

Saturday, October 24, 2009

The Honorable Elizabeth B. "Lib" Fleming
Chairman

Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

RECEIVED
2009 NOV -2 PM 2:37
SC PUBLIC SERVICE
COMMISSION

Dear Ms. Fleming:

I feel an obligation to explain some facts and aspects of my cross-examination done on September 22, 2009 during the hearing in the Smart Grid case, Docket No. 2008-447-EG.

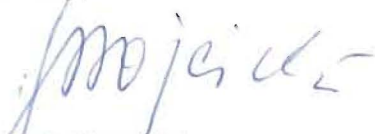
1. Several of my questions from the list I prepared from available documents have no answers, so the rest of them had no logical reason to be asked because there were no chances to record any valuable information from the panel.
2. I also stopped questioning to avoid any embarrassment to witnesses because I do respect everybody who wants to testify under such a powerful and experienced Commission.
3. I found Commissioners' questions to have high level of public interest consideration. And this is the main reason of this letter.
4. I believe I have enough education (MSEE) and experience in electric power generation, distribution systems, their protections, information and controls to make realistic suggestions in this case.
5. I am sorry that the ORS petition with its gas amendment was not followed by good technical work. The Stipulation that none of the changes is necessary in the future processes under the Commission are wrong. The Stipulation even disrespects first items of EISA smart grid definition and the panel could not find a basic explanation to support these bold statements and a request "to do nothing".
6. From my engineering and electric grid protection designing inside one of the world's largest grids from Kamchatka to Berlin Wall and beyond, there are so many aspects of grid protections with extensions of their scope on Smart Controls of the Grid which MUST be in the verification and investigation authority of ORS and, of course, the Commission.
7. The USA grid has in its history big outages in 1965 and in 2003. I have studied the 2006 report and found some omissions that must be brought to our attention here.

8. I delivered to US higher authorities several months ago some suggestions that indicate the future importance of South Carolina in the East Coast economy. One of the energy, including electrical, aspects requires installation of Central Dispatcher & Control Headquarter right here in SC. Maybe in Columbia or around Florence closer to the I-95 energy and transportation North-South corridor. The states of the Southeast region plans indicate significant increase of electric power demand in SC Atlantic coast, possibility of a Trans-East Fast Speed Railroad/ train line maybe with new meglev technology. Demand of electricity will be higher and its base load characteristic will increase importance of Smart Grid solutions. You may note that the West Pacific fast railroad project is now at the attention of our federal authorities. I believe that a new SC governor will join my initiative in the revitalization of SC ports, but this is out of the Smart Grid scope.
9. **SC must use its God-given location to use it on behalf of its people and entire US economy benefits. Therefore, the SC Commission role is obviously more important and it MUST have tools (rules and regulations) to verify, presently not so strongly demonstrated ORS power over utilities.** You found that Duke Energy is not going in a proper direction with Smart Grid deployment and I guess they use money from a stimulus package or grants to learn for themselves and ignoring already existing practical applications. The panel had no answers on basic questions from EISA brief list, Progress Energy new definition "Smart Grid is the Internet of the Energy Business" was not explained and you could see their practical lack of knowledge of necessary troubleshooting needs (protocols!). There is an old proverb from my old country: "Do not discuss colors with blind people." So we had no discussion on basic smart grid aspects.
10. During the Big North American Outages of 2003, many US institutions probably learned that education in the area of dynamic behavior, and specific protection in the grid structure is very important. I guess that old US experts no longer teach new generation of utilities engineers. Presently, one professor from old Yugoslavia is teaching these basic electromechanical and electromagnetic physics in five-day course for \$2,500 per person
11. I had a very nice meeting on the Smart Grid subject with Mr. Anthony James in ORS. He suggested cooperation so I left my offer but still there is no response from ORS legal department (Mr. James suggestion).
12. The "legal objection" to question about "voltage" was one of the proofs of elementary illiteracy and lack of understanding of EISA we got from our hearing. ORS must ask these questions; utility must respond and verifiers must analyze entire aspect of quality of electricity/energy efficiency and return back to redesigning if necessary. SC as a center of East coast grid, in fully extended

from Miami to Canada must be a leading regulatory controller in this cybernetic scope of science.

13. Sometimes we hear very offensive opinion about "our dumb State". Being here also as a technical educator for over 15 years, I have had students from SC with very high IQs. Those who finished 4-year technical educations with honors elected me as *"the educator who had the highest influence in my carrier"* to Who's Who Among America's Teachers. Being in Savannah River Site I have seen such a high level of technical professionalism. There I have seen results of wise decisions made in the 1950s by my sponsor, late Senator Strom Thurmond. SC still has smart activists! It is not a bold statement that SC government authorities can and will be leaders in the USA. There is one "if": the SC strong legal army must have a weapon made by engineers. Also in due process, **Facts must override legal Tricks**. Unfortunately, sometimes-opposite situation happens in real life.
14. From my years of experience in investments, especially in electric power area the accurate verification of all documents was a key to successes. Being a verifier and directing teams of verifiers, we have removed many errors and saved funds as well as good opinion of projects. The verification on ORS and PSC levels will create security for everybody.
15. One of the experts in the 2008-169-E hearing, answering my question, said: "Yes, common sense is important especially when is supported by science". Let's do the new strong PSC Order with logical and electrical engineering foundation to be the model for our Smart Grid designing and verification process. Do not allow for another frivolous "de-regulation" or "no more regulation" decision to be made."

Yours faithfully,



Joseph "Joe" Wojcicki

Columbia, South Carolina

Biographical Information of the Applicant

- Joseph Edward Wojcicki -MSEE

Brief form for the Grant Purpose

EDUCATION

Master of Science in Electrical Engineering

Additional graduate studies & diplomas / licenses / certificates / credit courses in:

Mechanical Engineering Technology, Instrumentation & Process Control, Industrial Automation, Economics for Engineers, Large Industry Organization, Troubleshooting, etc

EXPERIENCE.

Technical University teacher and scientists: Subjects: 1. Electric Grid protections and automation; 2. Economics for Engineers _ in 300-500 level. + Grid Science researcher. _ over three years

Director of Energy Department in Big General Contractor Company... three years

Electrical Designer from small investments, medium industrial facilities, large food processing and to modern Oil Refinery (\$ 2.5 billion-investment)...over 20 years

Process Control & Instrumentation designer...over 15 years _ ISA active member.

Technical processes' troubleshooter and expert...over 20 years (mostly as a second job)

Technical and organizational documentation verifier then director of multi-disciplinary verification dept., project leader/coordinator...over 10 years

Investment organizer and inspector...over 10 years.

Emergency technical and general support including works for FEMA after Hurricane Hugo.

Led multitasking and engineering teams... as needed

Hands-on experience in electrical/electronics/ mechanical trades work in SC over 3 years – Electrician's license.

Educator: ABET approved Engineering Technology Programs' Coordinator ... 15 years in Technical Education System. Elected to Who's Who Among America's Teachers.

Technical and managerial consulting...as needed

Volunteer: as an intervenor in PSC hearings for Nuclear Projects and Smart Grid. Reviewed Applications and troubleshoot/verifier their energy, electricity and network contents. Administered Renewable Energy 4 SC website, and taught free courses, lately Solar Energy for Us (ESLR-101)